

Max's Easter Egg-stravaganza Math Challenge

Learning objective: To apply Grade 3 mathematical skills including multiplication, division, money calculations, and perimeter reasoning within an Easter-themed context.

Read each card carefully. Use your reasoning skills to solve the puzzles. For the 'Greater Depth' questions, provide a written justification for your mathematical method.

Max has 8 baskets. Each basket holds 12 chocolate eggs. How many eggs does Max have in total?

96 eggs ($8 \times 12 = 96$).

If an Easter bunny decoration costs £4.50, how much would it cost to buy 4 decorations?

£18.00 ($£4.50 \times 4 = £18.00$).

Zara is painting a rectangular egg-shaped sign with a length of 7cm and a width of 5cm. What is the perimeter?

24cm ($7 + 7 + 5 + 5 = 24$).

Finn finds 72 seashells to decorate his Easter display. He wants to share them equally between 6 friends. How many shells does each friend get?

12 shells ($72 \div 6 = 12$).

An Easter hamper costs £25.00. If you pay with a £50.00 note, how much change should you receive?

£25.00 ($£50.00 - £25.00 = £25.00$).

Kit has a chocolate bar that is divided into 10 equal squares. He eats $\frac{4}{10}$ of the bar. What is this fraction in its simplest form?

$\frac{2}{5}$.

Greater Depth: Explain why the perimeter of a square with 6cm sides is the same as the perimeter of a rectangle with sides of 8cm and 4cm.

Both perimeters equal 24cm. $6 \times 4 = 24$ and $(8 + 4) \times 2 = 24$.

Greater Depth: Compare and contrast calculating the cost of 5 items at £2.99 versus 5 items at £3.00. Which strategy is more efficient?

Multiplying 3.00 by 5 is 15.00, then subtracting 0.05 ($5 \times 1p$) is 14.95. This is often faster than multiplying £2.99 directly.

Greater Depth: Justify your answer: If Max has 48 eggs to divide into boxes of 6, and he finds 12 more eggs, how many boxes will he need now?

10 boxes. ($48 \div 6 = 8$ boxes; $12 \div 6 = 2$ boxes; $8 + 2 = 10$ boxes).

Greater Depth: What might happen if you calculate the perimeter of a shape but forget to include two of the sides?

The result would be incorrect because the perimeter must account for the total distance around the entire boundary of the shape.